


## Angle measuring device using clamping means

**Patent number:** DE3931939  
**Publication date:** 1991-04-04  
**Inventor:** IKEUCHI MASAYUKI (JP); HATA TOSHIAKI (JP)  
**Applicant:** MITSUBISHI ELECTRIC CORP (JP)  
**Classification:**  
- international: F02P9/00; G01B11/26  
- european: F02D41/34B2, F02P7/073, G01D5/245B  
**Application number:** DE19893931939 19890925  
**Priority number(s):** US19890413645 19890928

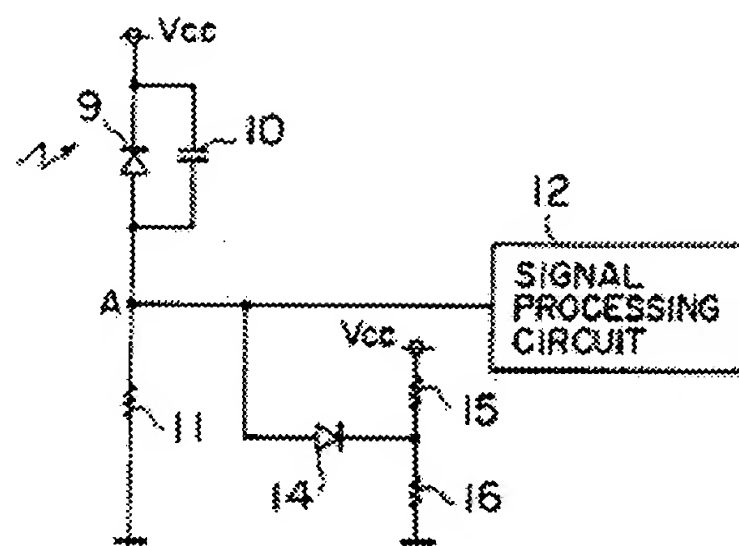
Also published as:

 US4935622 (A1)

Abstract not available for DE3931939

Abstract of correspondent: **US4935622**

An angle measuring device for measuring the turning angle of a crankshaft in an internal combustion engine in order to control the ignition timing, etc. thereof comprises: a rotating disc adapted to rotate in synchronization with the rotation of a crankshaft and having a plurality of slits formed along the circumference thereof; light-emitting elements arranged in the vicinity of the rotating disc; a photodiode adapted to receive light emitted from the light-emitting elements through the slits of the rotating disc; a resistor for converting electric-current signals output from the photodiode into voltage signals; a clamping device for clamping the maximum voltage at the output terminal of the converter to such a voltage value as will not allow the photodiode to be forward-biased, and a signal processing circuit adapted to measure the turning angle of the rotating disc by processing the electric-current signals converted into voltage signal by the resistor.



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